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File Code: 3420 **Date:** December 3, 2003
Route To:

Subject: Dwarf Mistletoe Management on Borrego Mesa (caminorealrd)

To: District Ranger, Camino Real RD, Carson NF

On October 31, I met with Paul Czeszynski and Deanna Williams to examine a planned treatment area on Borrego Mesa. Paul had requested some input on dwarf mistletoe management for this site, which is located just north of Rio Pueblo on the west side of Highway 518. Originally, a small timber sale had been planned for a 250-acre stand on Borrego Mesa; more recently the project area has been expanded to about 400 acres, with a primary objective of fuels reduction.

The forest here is predominantly ponderosa pine, with very minor amounts of Douglas-fir and white fir. The last entry (thinning) appears to have been well over 20 years ago, with the exception of some fire-killed trees that were removed about three years ago in stand 4114-0018. Most of the forest is fairly dense, with basal areas generally ranging from 120 to 180 ft^2 per acre. Pine dwarf mistletoe is relatively light and scattered in the original sale area (stand 4113-0027), but more extensive in the areas that were added, especially stand 4110-0016.

A combination of silvicultural methods could be used for managing dwarf mistletoe in this area. Low thinning (thinning from below) and/or prescribed burning would be a good ecological approach for managing the disease throughout the area. These methods could also be used effectively to reduce wildfire hazard.

Stand 4113-0027 (the original sale area) is relatively uniform and more or less single-storied, comprised mostly of young sawtimber. In addition to low thinning, group selection cuts could be utilized here to increase heterogeneity and introduce a new size class (or promote an existing size class). Disease incidence could be reduced by removing entire groups of infected trees, including "buffers" 30 to 40 feet beyond the edge of visible infection to account for latent infections. From both a silvicultural and a disease standpoint, it may be most reasonable to locate groups in both infected and uninfected portions of the stand. Low thinning would be recommended between groups to improve overall stand conditions.

Stand 4110-016, which was added to the original project area, tends to be much more uneven-aged, with dense groups of saplings and small poles and a scattering of mature trees. The extensive mistletoe infestation here makes it a difficult area to manage effectively. Removal of infected overstory trees would capture imminent mortality and provide sawtimber, but would not provide very effective disease control because much of the regeneration is already infected. Deferral may be a good option for some portions of this stand, since mistletoe would be stimulated on the residual trees after thinning. However, either low thinning and/or prescribed burning could be used in some portions to reduce fuels. Careful selection and marking of leave trees should lessen the impact of the disease.

Feel free to contact us for additional assistance on this project or other insect and disease issues.

/s/ David A. Conklin
DAVID A. CONKLIN
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cc: Paul R Czeszynski, Deanna R Williams, Kurt Winchester, Leonard Lucero, Debra Allen-Reid